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MITOX®

Operator's Manual

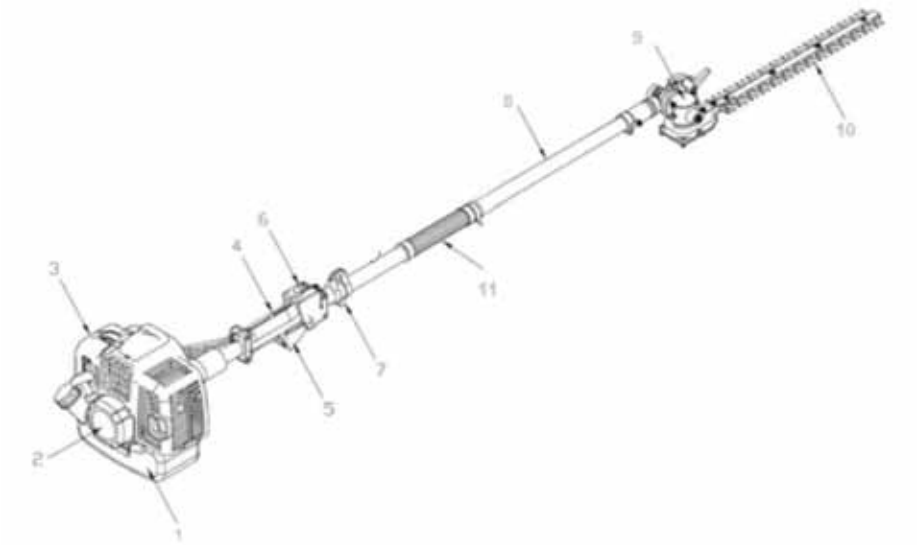
user manual, maintenance instructions and spare parts

266LRH / 268LRH Hedgetrimmer

Read this manual carefully before operating the machine

Original Instructions Version June 13

Component Location



1. Fuel tank – 2 stroke mixture
2. Engine starter.
3. Carburettor / air filter.
4. Safety lever.
5. Throttle control lever.
6. Ignition switch.
7. Harness hanger.
8. Transmission shaft.
9. Gear box.
10. Cutting blade.
11. Rubber hand grip

PRODUCT DESCRIPTION
This Hedge Trimmer is a 2 stroke fast running power tool and is designed to be used in a domestic application for trimming new growth on hedges.

Warnings in the Manual

⚠WARNING

This mark indicates instructions which must be followed in order to prevent accidents which could lead to serious bodily injury or death.

IMPORTANT

This mark indicates instructions which must be followed or it leads to mechanical failure, breakdown, or damage.

NOTE

This mark indicates hints or useful directions in the use of the product.

Safety Symbols

(1) Read operator's instruction book before operating this machine.

(2) Appropriate ear, eye, and head protection must be worn.

(3) Handling this machine improperly could result in accidents causing serious injury or death. Read this manual carefully and practice using the hedge trimmer until you are fully acquainted with all operations and have learned to use it correctly.

(4) This is extremely sharp and can easily cause cuts.

(5) Directive 2000-14/CE. Guaranteed noise levels.

(6) Danger: risk of exhaust fumes intoxication.

Taking Care of Warning Labels

Always keep warning labels clean and free of scratches, which might make them illegible or difficult to read. If the warning labels provided with your hedge trimmer become damaged, peel off, or otherwise become illegible or difficult to read, order new labels from the authorised servicing dealer and replace the damaged labels. When applying new labels, first wipe away any dirt and dry the surface before applying the new label in the same place as the original label.

Explanation of Symbols on the Machine

For safe operation and maintenance, symbols are carved in relief on the machine:·

FUEL TANK

Fuel tank 2 stroke mix
Position: Fuel cap

CHOKE OPERATION

Starting mode when the engine is hot (choke off).
Position: Air cleaner cover.

Starting mode when the engine is cold (choke on).
Position: Air cleaner cover.

Safety Precautions

Introduction

Read this Owner/Operator Manual carefully. Be sure you understand how to operate this hedge trimmer properly before you use it. Failure to do so could result in serious injury.

Keep this manual handy so that you may refer to it later whenever any questions arise. Also note that you are able to contact the dealer from whom you purchased the product for assistance.

Always include this manual when selling, lending, or otherwise transferring the ownership of this product.

This product has been designed to be used as a hedge trimmer power tool as described previously and it should never be used for any other purpose; doing so could result in unforeseen accidents and injuries occurring. Only approved Mitox accessories should be used with this product.

This Hedgetrimmer is equipped with extremely sharp blades, always wear sturdy gloves when handling the blades and fit the safety guards when not in use.

When using this hedge trimmer for the first time, take the hedge trimmer to a wide, clear, open space, start the engine, and practice handling the hedge trimmer until you are sure that you will be able to handle it properly in actual operation.

You should never use this hedge trimmer when under the influence of alcohol, suffering from exhaustion or lack of sleep, suffering from drowsiness as a result of having taken medicine, or at any other time when your judgment might be impaired or that you might not be able to operate the hedge trimmer properly and in a safe manner.

Never allow children or anyone unable to fully understand the directions given in this manual to use this hedge trimmer.

When planning your work schedule, allow plenty of time to perform the work and allow plenty of time for rest. Limit the amount of time you continuously use the hedge trimmer to 30~40 minutes per session, and take 10~20 minutes of rest between work sessions. Also try to keep the total amount of work performed in a single day to 2 hours.

Avoid running the engine indoors the exhaust gases contain harmful carbon monoxide.

Never use the Hedge Trimmer in conditions as described below:

When the ground is slippery or when other conditions exist which might make it difficult to maintain a steady posture while using the hedge trimmer.

At night, at times of heavy fog, or at any other times when your field of vision is limited and it would be difficult to gain a clear view of the area where the hedge trimmer is to be used.

In heavy rain, during lightning storms, at times of strong or gale-force winds, or at any other times when weather conditions might make it unsafe to use this product.

Lack of sleep, tiredness, or physical exhaustion results in lower attention spans, and this in turn can lead to accidents and injury.

Work Clothing and Safety Equipment

When using the product, you should wear proper clothing and protective equipment.

- Helmet
- Protection goggles or face protector
- Ear protectors
- Thick work gloves
- Non-slip sole work boots

Safety and Operation

⚠WARNING

This hedge trimmer is equipped with very sharp blades, and when used incorrectly the blades can be extremely dangerous.

Improper handling can cause accidents which may in turn lead to serious injury or death. For this reason, you should always be careful to adhere to the following instructions when using your hedge trimmer

Never hold the hedge trimmer in a way in which the blades are pointing towards someone else. Never allow the blades to come into contact with your body.

Always turn off the engine before adjusting the hedge trimmer, removing branches which have become stuck in the blades, or at any other time when coming into close proximity with the blades.

Always wear thick work gloves when adjusting the hedge trimmer.

Always place the blade cover provided over the blades when not in use.

Falling branches may fall onto the operator's body or head, resulting in injuries, scratches, and cuts, and for this reason you should always wear a helmet when operating the hedge trimmer.

Safe Handling of Fuel

⚠WARNING

The engine of the hedge trimmer is designed to run on a two-stroke oil/fuel mixture. This fuel is highly flammable, never store cans of fuel or refill the fuel tank in any place where there is a source of heat or fire which might ignite the fuel.

Do not smoke whilst operating the hedge trimmer or refilling, keep lit cigarettes away from the hedge trimmer at all times.

When refilling the fuel tank always stop the engine first and carefully make sure that there are no sparks or open flames anywhere nearby before refuelling.

If any fuel spillage occurs during refuelling, use a dry rag to wipe any fuel which has been spilled onto the hedge trimmer before starting the engine.

After refuelling, screw the fuel cap back tightly onto the fuel tank and carry the hedge trimmer to a spot 5 metres or more away from where it was refuelled before starting the engine.

Before Operating the Hedge Trimmer

Before beginning work, carefully check the work area and remove any obstacles.

Within a perimeter of 15 metres of the work area should be considered a hazardous area into which no-one should enter while the hedge trimmer is being used, and when necessary this area should be marked with a warning rope, warning signs, or other forms of warning.

When work is to be performed simultaneously by two or more operators, care should also be taken to constantly look around to check the presence and locations of other operators within the work area to maintain a safe distance between each operator.

Before beginning work, each component of the hedge trimmer should be checked to make sure that it is in proper working order, make sure that there are no loose screws or bolts, fuel leaks, ruptures, dents, or any other problems which might interfere with safe operation. Be especially careful to check that there is no damage to the blades.

Keep all parts of your body away from the hedge trimmer blades when the engine is running.

Before Starting the Engine

Carefully check the work area to make sure that no obstacles exist within a perimeter of 15 metres around the hedge trimmer before starting the engine.

To start the engine, place the hedge trimmer onto the ground in a flat clear area and hold it firmly in place to ensure that neither the blades or the throttle come into contact with any obstacles when the engine starts.

After starting the engine, make sure that the blades stop moving when the throttle trigger is released (idle). If the blades continue to move when the engine is at idle, adjust the idle screw on the carburettor to a point where the blades stop moving, if this cannot be achieved, take the hedge trimmer to your authorised servicing dealer for adjustment.

Avoid Noise Problems

Check and follow the local regulations for sound levels and hours of operation for garden machinery.

In general, operate hedge trimmers between 8 am, and 5 pm on week days and 9 am to 5 pm at weekends. Avoid using the hedge trimmer late at night and/or early in the morning.

Safety when using the Hedge Trimmer

When using the hedge trimmer, grip the handles firmly with both hands, place your feet slightly apart so your weight is distributed evenly across both legs, and always maintain a steady even posture while working. Do not use on ladders or if the ground surface is slippery or uneven. Never attempt to cut directly overhead or with one hand.

- Maintain full engine speed when cutting.
- Never allow other persons to come within the work area as doing so might expose them to danger.
- Keep work area clear of all persons, particularly small children and pets. Injury may result from flying debris.
- If a branch or other object gets caught in the hedge trimmer during operation, always stop the engine before removing the object.
- To protect yourself against injury from falling branches, wear the required safety equipment.

- Never touch the spark plug or plug HT cable while the engine is in operation, doing so may result in an electrical shock.

- Never touch the exhaust, spark plug, or any metallic parts while the engine is in operation or immediately after shutting down the engine. These parts reach high temperatures during operation and doing so could result in serious burns.

- When you finish cutting in one location and wish to continue work in another area, stop the engine, place the protective cover over the blades, and turn the hedge trimmer so that the blade faces behind your body before carrying it to the new location.
- Always remove fuel from the fuel tank before transportation to prevent fuel spillage.
- Never leave the hedge trimmer exposed to direct sunlight as this can heat the fuel tank and may cause a discharge of fuel, and flood the engine.

Two-Stroke Fuel

⚠WARNING

Fuel is very flammable. Do not smoke or bring any flame or sparks near fuel. Always stop the engine and allow it cool before refuelling. Refuel outdoors on bare ground, restart the engine at least 5m away from the refuelling stop.

The engine is lubricated by oil mixed into petrol. Prepare a mixture of unleaded petrol and semi-synthetic two-stroke oil that meets the specifications of: API TC, ISO-L-EGC, JASO FC (Low Smoke) oil.

Recommended mixing ratio is 40:1.

FUEL WITH NO OIL (RAW PETROL) will cause severe damage to the engine which is not covered by the manufacturer's warranty.

Use fresh, unleaded petrol (95 RON) and semi-synthetic oil specially made for high performance two-stroke engines. Mix in a ratio of 40 parts petrol to 1 part of oil.

By using two-stroke oil specially made for two-stroke engines you will reduce the formation of ash and carbon deposits on the spark plug, piston, exhaust muffler and cylinder as well as reducing emissions of harmful exhaust gases.

Oil FOR 4-CYCLE ENGINES should not be used as two stroke lubrication oil as it can cause fouling of the spark plug, exhaust port blocking, piston ring sticking and other internal engine damage.

Fuel Storage

Mixed two-stroke fuel which has been left unused for a period of one month or more may damage the carburettor and result in the engine failing to start or operate correctly.

When storing the hedge trimmer for a period of more than one month, empty the fuel tank, and run the engine to empty the carburettor of fuel.

Two stroke fuel can cause deterioration of rubber and/or plastic components during prolonged storage.

It is important to only use good quality, fresh fuel mix.

Fuelling

Shake the fuel container to thoroughly mix the two-stroke oil and petrol.

Clean dirt from around the fuel cap before removing.

Pour two-stroke fuel into the fuel tank with a filtered funnel, up to 80% of the fuel tanks capacity.

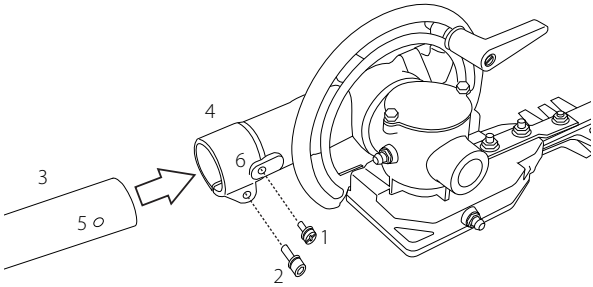
Replace the fuel cap and tighten securely. Spilled fuel must be wiped away from the hedge trimmer before starting the engine.

Move at least 5m away from the refuelling area before restarting the engine.

⚠WARNING

When refilling the tank, always turn off the engine and allow it to cool down. Take a careful look around to make sure that there are no sparks or open flames anywhere nearby before refuelling.

Attaching the Hedge Trimmer Head



1. Remove the locating screw (1).
2. Using a 4mm Allen key, loosen the clamping bolt (2).
3. Slide the drive shaft (3) into the hedge trimmer gearbox (4) until the locating hole (5) in the drive shaft is visible though the locating hole (6) in the gearbox.
4. Insert the locating screw (1) into the gear box (6) and tighten.
5. Using a 4mm Allen key, tighten the clamping bolt (2).

NOTE

The thickness of fresh growth (green branches), which may be cut using this hedge trimmer, is limited to up to approximately 10mm. Never try to cut branches thicker than this, as doing so may result in damage to the hedge trimmer.

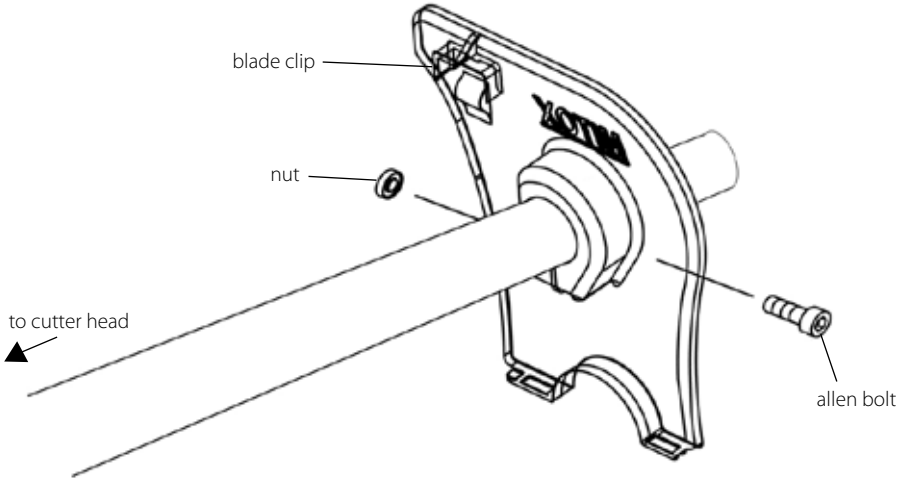
Operation

Adjusting the angle of the cutting blades

1. Stop the engine.
2. Turn the clamp bolt located on the top of the trimming mechanism counter-clockwise to loosen it.
3. Adjust the angle of the blades to the desired angle, and then tighten the bolt firmly back into place.
4. Always wear gloves when adjusting the blades.

Fitting the Handguard

Hedgetrimmer attachments are supplied with a hand guard, which prevents the operator from acidentally touching the hedgetrimer blades. On 281-MT models this guard also acts as a clip where the tip of the blades can be secured when the hedgetrimmer is folded for storage.



To fit the hand guard, slide it over the driveshaft and secure in place using the allen key bolt and nut supplied. Ensure that on 281-MT models the clip side is facing towards the cutter head and is fitted at the point where it can be used to secure the tip of the blades when the hedgetrimmer is folded for storage.

Ensure that the two flat feet are facing the ground to support the hedgetrimmer when it is placed flat on the floor.

Blade information

- Never cut hedges thicker than 10mm and only fresh growth.
- If wire is caught by the blades, damage can occur which is not covered by the warranty.
- When sharpening, removing, or reattaching the blades, be sure to wear thick, sturdy gloves and use only appropriate tools and equipment to prevent injury.
- After you have finished using the hedge trimmer, clean the blades and apply clean light grade lubricating oil to the entire length of the blades, including the blade bolts.

Operation

⚠WARNING **Keep clear of the blades as they may start moving when engine starts.**

Starting the Engine

CAUTION do not pull the starter cord all the way out and do not let go of the starter handle when the cord is extended, this can damage the starter mechanism.

Cold Engine Starting

Rest the unit on a flat, firm surface. Keep the blades off the ground and clear of surrounding objects as they may start moving upon starting of the engine.

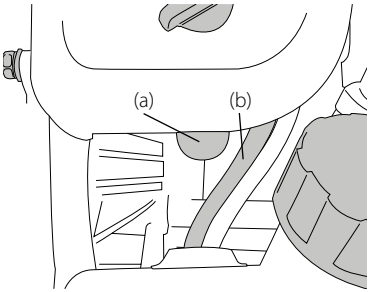


Fig 1 - Push the air purge bulb (a) until fuel is visible in the clear return fuel line (b).

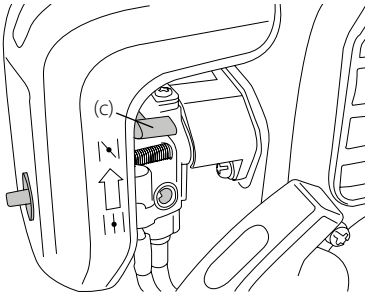
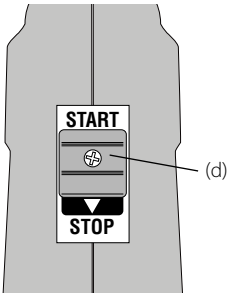
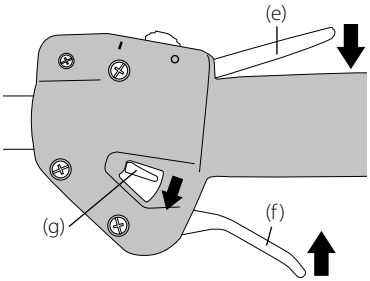


Fig 2 - Move the choke lever (c) to the closed position.



Set the ignition switch (d) to the START (I) position.



268LRH only, hold the safety lever (e) down and squeeze the throttle control lever (f), push down the fast idle control (g).

- Release the throttle control lever first and then release your hand.
- Slowly pull the recoil starter handle until engagement of the pawls with the flywheel is felt.
- While holding the unit, pull out the starter rope firmly until engine fires (indicated by a 'cough' from the engine).
- Move the choke lever to the open position.
- Pull the starter rope until the engine starts.
- Pull and to release the fast idle control to return the engine to idle (268LRH).
- Allow the engine to warm up before use. When cutting, always use the machine on full throttle.

Hot Engine Starting

Set the ignition switch (b) to the start position "I" (d) Fig 3.
Pull the starter rope until the engine starts.
If the engine does not start after 5 pulls, use the cold start procedure.

NOTE

Overchoking

Should the engine become flooded due to overchoking, turn the ignition switch off, unscrew the spark plug, wipe it dry or replace.

Stopping the Engine

Set the engine to idling by releasing the throttle lever.

Set the ignition switch to the off position "O" (STOP).

If the engine fails to stop, set the choke lever to the closed position to stall the engine; do not use the machine until the ignition switch is repaired.

Running In

During the first ten hours of work, avoid running the engine at maximum speed for a prolonged period until all the components have bedded in, after the engine has been run in, it will reach its maximum power.

Transportation

Never transport the hedge trimmer with the engine running. An engine that is running could be accidently accelerated causing the blade to engage.

Make sure the blade safety guards are in place when transporting the hedge trimmer.

When carrying by hand, the cutting head should be pointing backwards.

Ensure the Hedge Trimmer is secure when transporting in a vehicle and the tank is drained of fuel.

Maintenance

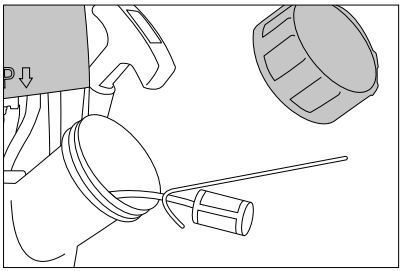
IMPORTANT

After every use, check that all nuts, bolts and screws are securely fastened and tighten if necessary.

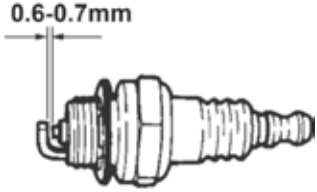
In the event of an accident, breakdown or blockage, ensure the engine is turned off before any work is carried out to rectify this.
Make sure the engine has stopped and is cool before performing any service to the machine. Contact with moving cutting head or hot muffler may result in a personal injury.

Fuel Filter

Every 15 hours of operation, using a wire hook, take the fuel filter from the fuel tank and clean or replace with a new fuel filter.

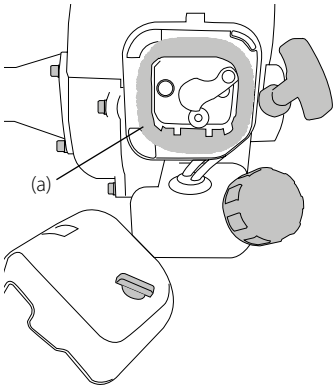


Spark Plug



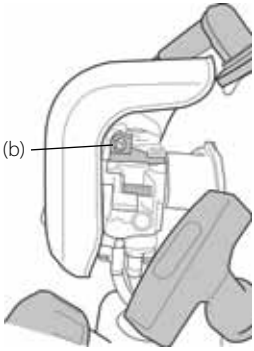
Poor starting or misfiring is often caused by a fouled or defective spark plug, clean and reset the gap to 0.65 mm, or replace the spark plug with NGK: BPRM7A as necessary.

Air Filter



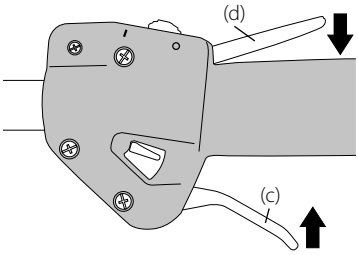
Before using the hedge trimmer, check the air filter (a). Being clogged, will reduce the engine performance. Remove the air filter cover by undoing the cover screw clean the filter element in warm, soapy water, dry completely before installing. If the element is broken or shrunk, replace with a new one.

Carburettor



The carburettor mixture setting has been set at the factory and will not need adjusting.
Adjusting the idle speed.. If adjustment is necessary turn the T screw (b) clock wise until the blades start to move, then turn the screw T anticlockwise until the blades stop.
If the idle speed cannot be adjusted to stop the cutting head moving at idle, contact your dealer for repair before use.

Safety Lock



The safety lock is to prevent the throttle lever from accidentally being engaged. The throttle lever (c) can only be pressed in if the safety lock (d) is held down. Check if the safety lock and throttle lever returns to its original position and the engine returns to idling when you release your hand from the handle.
Any defects contact your nearest service agent for repairs before using the machine.

Storage

- Remove the spark plug, pour a small amount of oil into the cylinder. Rotate the crankshaft several times using the starting rope in order to distribute the oil. Put the spark plug back in.
- Remove the fuel from the machine.

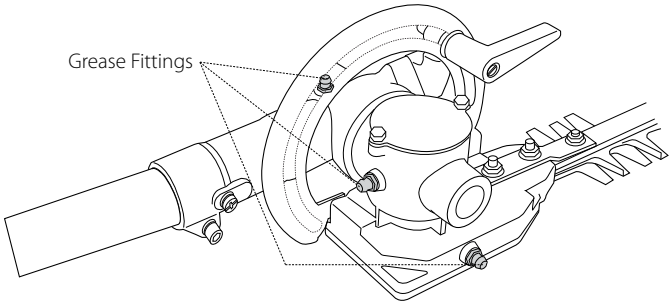
- Check the hedge trimmer for damage or problems at the intervals shown below.

Blades

- Remove the fuel from the machine.
- After each session of operation, oil the cutting blades with light chain oil.
- If gap exists between upper and lower blades, adjust them so they are closer together, this is achieved by loosening the top lock nut, screw the blade bolt in until a snug fit and then loosen blade bolt ½ turn.
- Hold the blade bolt from turning and tighten the lock nut.

- **If you feel that you will not be able to adjust the blades correctly, you should take the hedge trimmer to an authorised repair agent.**

Gearbox Lubricant



- Always be sure to use lithium based grease.
- DO NOT force grease into the gear box, apply 2 or 3 pumps of grease every 15 hours of operation.

Troubleshooting

Engine will not start, power loss:

- Check that the fuel tank is not empty. Fill with mixed fuel.
- The fuel does not reach the carburettor. Change the fuel filter in the fuel tank.
- There is water in the fuel. Drain and clean the fuel system.
- The air filter is dirty. Clean or replace the air filter.
- There are carbon deposits in the exhaust muffler restricting the engine. Clean or change the muffler.
- Spark plug is worn. Replace spark plug.

Service Schedule

Component	Procedure	Before Use	Every 25 Hours	Every 50 Hours	Every 100 Hours	Note
Fuel Leaks / Fuel Spillage	Clean Up	•				
Fuel Tank. Fuel Filter	Inspect / Clean		•			Replace if Neccessary
Idle Adjusting Screw	See Adjusting Carburettor	•				Adjust if Neccessary
Spark Plug	Clean and Readjust Plug Gap			•		Gap 0.025in (0.6-0.7mm) Replace if Neccessary
Cylinder Fins, Intake Air Cooling Vent	Clean		•			
Muffler, Spart Arrester, Cylinder Exhaust Port	Clean				•	
Throttle Lever, Ignition Switch	Check Operation	•				
Air Filter	Clean	•				
Screws, Nuts, Bolts	Tighten/Replace					Except Adjusting Screws
Vibration Elements	Check for Damage	•			•	Replace as Necessary
Blades	Clean and Oil	•				Check for Damage & Replace as Necessary

Specifications

MODEL MITOX 266LRH 268LRH		
Engine	**Type**	Air cooled 2-stroke gasoline engine
	Model	IE34F-2E
	Displacement : (cm3)	25.4 cc
	Max. output	0.7 (kw) in accordance with ISO 8893
	Idle speed: rpm (min –1)	2800±150
	Max. power speed: rpm (min –1)	9800
	Fuel tank capacity	0.65L
	Fuel	Mixture (petrol 40 : Oil 1)
	Carburettor	Diaphragm type
	Spark Plug	Torch L8RTC or NGK-R BPMR7A or equivalent
Transmission	Centrifugal clutch, spur gear, cam-crank	

MODEL MITOX 266LRH		
Dry Weight w/o shoulder strap & petrol		7.1 kg
Overall size (LxWxH)		2300mmx230mmx250mm
Reduction ratio		4 : 1
Cutting head	**Type**	Reciprocating Double blade
	Pitch	30mm
	Effective cut width	16 inches/ 400mm
	Angle adjust range	90°(±45° from cutting head position aligned shaft)

MODEL MITOX 268 LRH		
Dry Weight w/o shoulder strap & petrol		7.2 kg
Overall size (LxWxH)		2410mmx230mmx250mm
Reduction ratio		4 : 1
Cutting head	**Type**	Reciprocating Double blade
	Pitch	30mm
	Effective cut width	21 ½ inches/ 550mm
	Angle adjust range	220°

Above specifications are subject to change without notice.

CONDITIONS OF WARRANTY

The manufacturer warrants the product against faulty materials and workmanship for a period of 2 years from the date of first purchase. The warranty is applicable when the product is used in a "home owner" application. If products are used for commercial or professional purposes, the warranty period is for 3 months from the date of first purchase. Warranty does not extend to failure due to fair wear and tear.

The manufacturer undertakes to replace, any spare parts that are classified as defective by an appointed Mitox service dealer. The manufacturer will not accept liability for the replacement of the machine, either partially or wholly, and /or consequential damages and /or interest charges either directly or indirectly.

Warranty does not cover failure due to:

Insufficient maintenance.
Incorrect fuel mixture and stale fuel.
Abnormal use or accidental damage.
Incorrect assembly, adjustment or operation of the product.
Spare parts that are subject to wear e.g. safety parts, blades, blade supports, bearings, cables, guards, deflectors, spark plugs, air filters etc.

Neither does warranty extend to:
Freight and packing costs.
Use of non-genuine spare parts i.e. those from another manufacturer.
Use of the machine for any other purpose than that for which it was designed.
Use and maintenance of the machine in a manner not described in the owner's manual.

As part of our policy of continuous product improvement, we reserve the right to alter or amend this specification without notice. As a result, the product may differ from the information contained herein but any alteration will only be implemented without notice if it is classified as an improvement to the above specification.

READ THE MANUAL CAREFULLY BEFORE OPERATING THE MACHINE

When ordering spare parts, please quote the part number, this can be found in the parts list included in this manual.

Retain the receipt of purchase without which no warranty can be offered.

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Wincanton Business Park
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BA9 9RS